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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/247,809	02/11/1999	SHIGERU TOKITA	H-733	8074

24956 7590 09/10/2002

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EXAMINER

TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 09/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/247,809

Applicant(s)

TOKITA ET AL.

Examiner

Dzung D Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 7/01/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant's canceled non-elected claims 3 and 7-20 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art in view of Miyazaki et al. U.S. patent no. 6,040,931.

Prior Art in figure 12 clearly shows an optical transmitter, for coupling to communication devices through an optical divider/coupler, having a source outputting a drive current (Figure 12, element 11 and page 1 of specification), a light-emitting element (Figure 12, element LD and page 1 of specification), for outputting an optical signal to an optical fiber coupled to at least one of the communication devices, that is driven by the drive current for generating an optical output signal and, a modulator (Figure 12, element 109 and page 1 of specification), controlling the supply and cutoff of the drive current to the light-emitting element. Prior Art differs from claim 1 of the present invention in that Prior Art does not disclose a detecting circuit that detects a source voltage; and a control circuit that stops, if the detected source voltage is lower

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than the predetermined voltage, the supply of the drive current to the light-emitting element. Miyazaki discloses a terminal station apparatus having an optical transmitter comprising: a monitor unit (Figure 4, element 22) that stops the supply of the drive current to the light-emitting element in response to an externally supplied shut-down signal (column 5, line 35-48). The monitor unit of Miyazaki corresponds to the claimed detecting circuit since they perform the same functions;

and a judgment circuit (Figure 4, element 24, column 5, line 49) that stops, if the detected source voltage is lower than the predetermined voltage, the supply of the drive current to the light-emitting element (column 5, lines 49-63). It would have been obvious to an artisan at the time of the invention was made to include a voltage detector and a low voltage controller of Miyazaki in the transmitter of Prior Art in order to prolong the life and the efficiency of the output laser and obtain a better optical transmission signal.

In considering claim 2, Miyazaki et al. further disclose a judgment unit (Figure 3, element 22) that stops the supply of the drive current to the light-emitting element in response to an externally supplied shut-down signal (column 4, line 35-43). The judgment unit of Miyazaki corresponds to the claimed logic circuit since they perform the same functions. Therefore, it would have been obvious to an artisan at the time of the invention was made to include a judgment unit of Miyazaki in the transmitter of Prior Art in order to turn on the laser only whether the monitored parameter satisfies with a predetermined condition so that the life of the laser can be prolonged.

In considering claim 4, Miyazaki et al. further disclose the light-emitting element

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is a laser diode (Figure 11, element 30, column 8, line 65), and shutdown circuit that cuts off the drive current from the current source in the state of the voltage of the source being lower than a predetermined voltage (Figure 11, element 130, column 8, line 64 to column 5, line 17).

In considering claim 5, Miyazaki et al. further disclose a photodiode (Figure 11, element 60) that converts part of an optical output signal of the light-emitting element into an electrical signal; and a switch circuit that transmits the control signal outputted from the automatic power control circuit to the current source if the detected source voltage is over the predetermined voltage (Figure 11, element 130, column 8, line 64 to column 5, line 17).

4. Claim 6 is allowable.

Response to Arguments

5. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Nodine U.S. patent no. 5,379,145. Laser transmitter for light wave communication.

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b. Morita et al. U.S. patent no. 5,706,112. Light signal remote control apparatus and light signal level controlling method.

c. Tahara et al. U.S. patent no. 5,548,435. Optical transmitter

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (703) 305-0932.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (703) 305-4729.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600